

In re Morel, J. L.

In the Claims:

1. (Currently Amended) Dismountable prefabricated structure, notably a dwelling, made of prefabricated sandwich panels, posts and crosspieces, all these elements being modular, characterized in that the sandwich panels (1) are comprised of two rectangular plates (41, 42) with height included between 0.7 m and 3.5 m made of a hydrosilicate and conifer cellulose base material having a specific mass equal to or less than 350 kg/m³ and thickness included between 3 cm and 5 cm, maintained separated by at least one horizontal strut (44) and at least one vertical strut (43) placed on a plurality of sides of the plates at a certain distance from their edges in order to constitute an interior case and an exterior groove (46) on a plurality of sides of the panel and by an additional strut defining one of an additional groove ~~similar~~ and an additional post, ~~and so that this~~ wherein said interior case is filled with an insulating material (45), the stability of the structure being ensured by one of crosspieces and/or ties (25,26,34) under tension connecting at least two adjacent panels and maintaining the panels tightly in place, and the structural shape defined by prefabricated angle parts (7).

2. (Currently Amended) Structure in accordance with claim 1, characterized in that the sandwich panels include a base panel with rectangular shape and the sandwich panels having ~~for width the three fourths, half or quarter of~~ a width sized between a quarter to three quarters the dimension of the base panel, ~~keeping the same height as the and a height equal to the~~ base panel.

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3. (Currently Amended) Structure in accordance with claim 1, characterized in that each horizontal row of panels has in its upper part a crosspiece ~~or a tightened continuous horizontal tie~~ maintaining the set of panels tight, and in that each panel is separated from an adjacent panel ~~the next~~ by a post of height equal to the height of said vertical strut (43) ~~the vertical struts of the panel and placed under the crosspiece.~~

4. (Previously Presented) Structure in accordance with claim 1, characterized in that the insulating material is an expanded volcanic sand mortar mixed with hydrosilicate and conifer cellulose base granulates.

5. (Previously Presented) Structure in accordance with the claim 1, characterized in that each angle part is prefabricated and made of two exterior plates placed at a right angle and two interior plates parallel to the exterior plates in the same material as the sandwich panels and separated by the same distance as the sandwich panels by struts leaving in the angle an empty space provided for receiving a post and having an insulating material between the plates.

6. (Previously Presented) Structure in accordance with claim 1, characterized in that the posts and the crosspieces have a square or rectangular section and in that the distance of the struts from the edge of the plates is equal to half the side of the square or rectangular section of the crosspieces and posts and the interval between the plates is equal to the side of this square or rectangular section.

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7. (Previously Presented) Structure in accordance with claim 1, characterized in that the posts and crosspieces are in solid or glued laminated wood and the struts of the panels in hydrosilicate and conifer cellulose base material having a specific mass equal to or less than 350 kg/m³ identical to the one of the plates, in wood or in metal.

8. (Previously Presented) Structure in accordance with claim 1, characterized in that the posts and crosspieces and/or ties are formed of one of metal, light reinforced concrete or plastic, and the struts of the panels are formed of one of wood or hydrosilicate and conifer cellulose base material having a specific mass equal to or less than 350 kg/M³ substantially identical to the one of the plates.

9. (Previously Presented) Structure in accordance with claim 2, characterized in that the sandwich panels are of modular dimensions relative to the panels, the posts and the crosspieces, that is to say their width is a multiple of the width of the base panel.

10. (Previously Presented) Manufacturing process of a structure in accordance with one of the above claims, characterized in that a platform is built having a surface roughly smaller than the structure, the process comprising the steps of:

placing a first angle part on this platform, then two ledgers in the angle part that are fastened on the platform;

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placing a first post having a height such that it is flush with the bottom of the groove provided in the angle of the angle part as well as both posts roughly of the same height in the spaces provided in the angle part;

placing two sandwich panels on each side of the angle part in order to enclose the last two posts placed, which constitute the start of both walls;

repeating the last operations so that a row of panels is constituted until another angle of the structure or a post making up a door or window frame is reached;

placing a first crosspiece in the groove provided in the upper part of the sandwich panels constituting a first wall and the same thing is done for the second wall, both crosspieces being assembled using a part provided for this in the post placed in the angle of the angle part;

once the second row of sandwich panels is placed, the crosspieces and/or ties are tightened;

repeating all these operations until the whole structure is completed.

11. (Previously Presented) Process in accordance with claim 10, characterized in that the platform is made of wood, concrete or metal.

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12. (Previously Presented) A structure, said structure comprising:

a plurality of substantially vertically assembled modular panels, each said modular panels being formed of:

two opposing plates each having a height within a range between 0.7 m and 3.5, said opposing plates being separated by at least one horizontal strut and at least one vertical strut disposed between said plates and being spaced apart a certain distance from peripheral edges of said plates thereby defining at least one horizontal groove extending between said plates adjacent said peripheral edge said modular panel having insulating material disposed between said plates substantially occupy a space between said plates; and

at least one crosspieces extending across two adjacent modular panels and being disposed within aligned horizontal grooves of said two adjacent modular panels, said cross piece being positively connected to each said adjacent modular panels and being under tension thereby maintaining said adjacent panels tightly in place.

13. (Previously Presented) The structure according to claim 12, said modular panels each further including an vertical strut disposed between said plates to define at least one vertical groove extending between said plates adjacent said peripheral edge of said modular panel, said assembly including a vertical post at least partially disposed within each of two adjacent vertical grooves of said two adjacent modular panels.